

**CLAIMS**

1. A haptic function-provided input device that performs touch operation to slide on an input detection plane,  
5 said device comprising:

input detection means, which has the input detection plane, for detecting a touching position of an operation body and a sliding speed of the operation body;

computation means for computing a vibration pattern  
10 based on the sliding speed detected by the input detection means; and

vibration means for vibrating the input detection plane based on the vibration pattern computed by the computation means.

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2. The haptic function-provided input device according to claim 1, wherein the computation means computes a vibration pattern of the input detection plane to generate vibrations from its low frequency and small amplitude to its high  
20 frequency and large amplitude, as the operation body goes away from a position where it has touched the input detection plane.

3. The haptic function-provided input device according to claim 1, comprising control means for controlling the input  
25 information variably based on the sliding speed.

4. The haptic function-provided input device according to claim 1, comprising control means for controlling input information variably based on distance information on a

distance from a point where the operation body touches the input detection plane to a point where its sliding then stops.

5        5. An information input method for inputting information by performing touch operation to slide on an input detection plane, said method comprising the steps of:

         detecting a touched position and a sliding speed of an operation body that touches the input detection plane;

         computing a vibration pattern based on the touched  
10        position and the sliding speed that are detected; and

         vibrating the input detection plane based on the computed vibration pattern.

         6. The information input method according to claim 5,  
15        wherein when computing the vibration pattern, a vibration pattern of the input detection plane to generate vibrations from its low frequency and small amplitude to its high frequency and large amplitude is computed, as the operation body goes away from a position where it has touched the input  
20        detection plane.

         7. The information input method according to claim 5, wherein an amount of the input information is adjusted on the  
25        basis of the sliding speed.

         8. The information input method according to claim 5, wherein the input information is selected on the basis of distance information on a distance from a point where the

operation body touches the input detection plane to a point where its sliding then stops.

9. An electronic device comprising a haptic function-  
5 provided input device that performs touch operation to slide on  
an input detection plane and display means for displaying a  
display image based on information input by the input device,  
wherein said input device includes:

input detection means, which has the input detection  
10 plane, for detecting a touching position of an operation body  
and a sliding speed of the operation body;

computation means for computing a vibration pattern  
based on the sliding speed detected by the input detection  
means; and

15 vibration means for vibrating the input detection plane  
based on the vibration pattern computed by the computation  
means.

10. The electronic device according to claim 9,  
20 wherein the computation means computes a vibration pattern of  
the input detection plane to generate vibrations from its low  
frequency and small amplitude to its high frequency and large  
amplitude, as the operation body goes away from a position  
where it has touched the input detection plane.

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11. The electronic device according to claim 9,  
comprising control means for controlling the input information  
variably based on the sliding speed.

12. The electronic device according to claim 9,  
comprising control means for controlling the input information  
variably based on distance information on a distance from a  
point where the operation body touches the input detection  
5 plane to a point where its sliding then stops.